BEFORE THE

OHIO ENVIRONMENTAL PROTECTION AGENCY

In the Matter of:

AK Steel Corporation : Director's Interim Findings

1801 Crawford Street : and Orders

Middletown, Ohio 45043 :

PREAMBLE

These Director's Interim Findings and Orders ("Orders") set forth actions AK Steel Corporation ("Respondent") is required to perform in the short term. If necessary, a set of Director's Final Findings and Orders will be issued later to require Respondent to take additional action. It is agreed by the parties hereto as follows:

i. JURISDICTION

These Orders are issued to Respondent pursuant to the authority vested in the Director of the Ohio Environmental Protection Agency ("Ohio EPA") under Ohio Revised Code ("ORC") §§ 3704.03, 3704.05 and 3745.01.

II. PARTIES BOUND

These Orders shall apply to and be binding upon Respondent and successors in interest liable under Ohio law. No change in ownership of Respondent or of the facility (as hereinafter defined) shall in any way alter Respondent's obligations under these Orders.

III. <u>DEFINITIONS</u>

Unless otherwise stated, all terms used in these Orders shall have the same meaning as defined in ORC Chapter 3704 and the rules promulgated thereunder.

IV. FINDINGS

The Director of Ohio EPA makes the following findings:

1. Respondent owns and operates an integrated iron and steel manufacturing facility located at 1801 Crawford Street, in Middletown, Butler County, Ohio (Facility). At the Facility, Respondent manufactures carbon-based steel strip. This facility is a Title V source and it is identified by Ohio EPA facility ID1409010006.

I certify this to be a true and accurate copy of the official documents as filed in the records of the Ohio Environmental Protection Agency.

Drup Casaler Date: 6-19-2018

- 2. The Title V permit for this Facility (P0105157) was effective as a Final permit on October 10, 2017.
- 3. Emissions unit ("EU") B918 (No 2 Coke Plant) at the Facility is the subject of these Orders and is subject to Ohio EPA rules and regulations. EU B918 is also subject to a Consent Order for Injunctive Relief and Civil Penalties, filed December 4, 2017 in Butler County Court of Common Pleas, Case No. CV 2017 12 2677 ("Consent Order"). These Orders do not relieve Respondent from any remaining obligations under the Consent Order.
- 4. ORC § 3704.05(C) prohibits any person who is a holder of a permit issued by the Director of Ohio EPA pursuant to ORC § 3704.03 from violating any of its terms and conditions.
- 5. ORC § 3704.05(J)(2), in part, prohibits any person from violating any applicable requirement of a Title V permit.
- 6. The National Emissions Standards for Hazardous Air Pollutants for Coke Oven Batteries (40 CFR Part 63, Subpart L) and Coke Oven: Pushing Quenching, and Battery Stacks (40 CFR Part 63, Subpart CCCCC) are incorporated as applicable requirements in the Title V permit for EU B918.
- 7. 40 C.F.R. § 61.355(a) requires owners or operators of a coke by-product recovery plant to determine the total annual benzene ("TAB") quantity from facility waste. To calculate the TAB quantity, owners and operators must calculate the annual benzene quantity by multiplying the annual waste quantity for each waste stream by the flow-weighted annual average benzene concentration for each waste stream. The annual benzene quantity for each waste stream generated for the year must then be added to the annual benzene quantity for each process unit turnaround waste annualized to get the TAB quantity.
- 8. 40 C.F.R. § 61.355(b) provides that, for purposes of calculating the TAB, owners or operators must determine the annual waste quantity at the point of waste generation by one of the methods enumerated in § 61.355(b)(5) though (7), unless otherwise provided.
- 9. OAC Rule 3745-17-07(B)(2)(a) states, in part that, there shall be no visible particulate emissions from any charging operations except for a period of time not to exceed one hundred twenty-five seconds during any five consecutive charges.
- 10. OAC Rule 3745-17-07(B)(2)(b) states, in part that, at no time shall there be visible particulate emissions from more than ten per cent of the offtake piping.

- 11. OAC Rule 3745-17-07(B)(2)(c) states, in part that, at no time shall there be visible particulate emissions from more than five per cent of the charging hole lids.
- 12. OAC Rule 3745-17-07(B)(2)(d)(ii) states, in part that, at no time shall there be visible particulate emissions from more than ten per cent of the oven doors.
- 13. Southwest Ohio Air Quality Agency ("SWOAQA") acts as a contractual agent of Ohio EPA for the Division of Air Pollution Control in Butler County.
- 14. On May 8, 2018, SWOAQA conducted an inspection of B918 and determined that twenty-two oven doors were leaking, which is greater than ten percent and in violation of OAC Rule 3745-17-07, ORC § 3704.05(C) and (J)(2), and the terms and conditions of the Title V permit.
- 15. On May 17, May 18, May 24, May 25, May 31, and June 6, 2018, SWOAQA collected 24-hour SUMMA® canister samples at locations outside the facility. The results showed levels of benzene at 5.1, 1.7, 11, 8.2, 1.8 and 1.9 parts per billion ("ppb"), respectively. The Minimal Risk Level used by the Agency for Toxic Substances and Disease Registry ("ATSDR") as a screening tool to evaluate health impacts for benzene is 9.0 ppb.
- 16. By letter dated May 29, 2018, SWOAQA notified Respondent of the violation referenced in Finding No. 14.
- 17. The Director has given consideration to, and based his determination on, evidence relating to the technical feasibility and economic reasonableness of complying with the following Orders and their relation to benefits to the people of the State to be derived from such compliance.

V. ORDERS

The Director hereby issues the following Orders:

- 1. Upon the effective date of these Orders, Respondent shall comply with all terms and conditions of the Title V permit.
- 2. Upon the effective date of these Orders, Respondent shall commence an evaluation of potential short-term benzene emission reductions at the facility. Respondent shall complete the evaluation expeditiously, but no later than fourteen (14) days after the effective date of these Orders. In consultation with Ohio EPA, Respondent shall promptly implement any reasonable emissions reductions. Within seven (7) days of the completion of the evaluation, Respondent shall submit to Ohio EPA and SWOAQA the results of this evaluation and the steps Respondent has taken to reduce benzene emissions. Respondent shall also submit, also within seven (7) days of the completion of

Director's Final Findings and Orders AK Steel Corporation Page 4 of 9

the evaluation, a detailed schedule for implementing any further reasonable longer term measures to reduce benzene that result from the evaluation, for Ohio EPA approval.

- 3. Within seven (7) days from the effective date of these Orders, Respondent submit documentation to Ohio EPA and SWOAQA demonstrating that emissions unit B918 has achieved compliance with:
 - a) OAC Rule 3745-17-07(B)(2)(a)
 - b) OAC Rule 3745-17-07(B)(2)(b)
 - c) OAC Rule 3745-17-07(B)(2)(c)
 - d) OAC Rule 3745-17-07(B)(2)(d)(ii) and (iii); and
 - e) OAC Rule 3745-17-07(B)(2)(e)
- 4. Respondent shall conduct ambient air sampling at one location West and one location Northeast of the facility. Respondent shall collect valid samples for fourteen (14) days. Within two (2) days of the effective date of these Orders, Respondent shall submit the proposed locations on a map to Ohio EPA for approval. Within five (5) business days after the approval of the proposed locations, Respondent shall commence the ambient air sampling. Continuous samples shall be collected over a 24-hour period using a laboratory certified-clean SUMMA® canister and regulator. Samples will be submitted to an approved laboratory for analysis of benzene by EPA Method TO-15. Requested laboratory turnaround time will be five (5) business days. All data will be submitted to Ohio EPA and SWOAQA upon receipt. If data from the analyses required under these Orders at the two locations dictates further ambient air sampling is warranted, Respondent and Ohio EPA will enter into a Modification of these Orders pursuant to Paragraph IX.
- 5. Within five (5) days of the effective date of these Orders, Respondent shall propose to Ohio EPA an independent third-party contractor to conduct visible emissions evaluations. Within fourteen (14) days from the date Ohio EPA approves the independent third-party contractor, Respondent shall have the independent contractor commence thirty (30) days of daily visible emissions evaluations (Method 303 and Method 9) for each visible emission limitations specified in the Facility's Title V Operating Permit for B918.
- 6. Within thirty (30) days from the effective date of these Orders, Respondent shall provide an updated analysis of the applicability of 40 CFR Part 61, Subpart FF (National Emission Standard for Benzene Waste Operations) to the Middletown plant. The analysis shall include updated numbers for the total annual benzene quantity from facility waste. In Respondent's original 1990 analysis, the tar decanter sludge stream was not included as a benzene stream. This stream should be included in the updated analysis.
- 7. In addition to Part 63 Subpart L's and Subpart CCCCC's work practice plan ("WPP") and operation and maintenance ("O&M") plan requirements, Respondent shall within one hundred and twenty (120) days of the effective date of these Orders revise the

Director's Final Findings and Orders AK Steel Corporation Page 5 of 9

WPP and O&M plans for emissions unit B918. The revised plans at minimum shall meet good engineering practices for minimizing emissions at least to levels required by Subpart L and CCCCC and contain the means to promptly identify, prevent and correct the Coke Oven emission issues. The revised plans shall specifically identify each additional operation and maintenance activity (e.g., inspection, evaluation and maintenance) along with its recommended implementation schedule. Additionally,

- a) Respondent shall maintain copies of the plans and make them available for inspection upon request.
- b) Respondent shall maintain, at the facility, all spare parts that are recommended by the individual control system's manufacturer and/or the spare parts identified in the plan for the Pushing Emissions Control (PEC) baghouse.
- c) Respondent shall record the date, the time and the results of each inspection and evaluation conducted on the PEC baghouse as well as the date, the finishing time, and the name of the person(s) conducting the maintenance, and a detailed description of each maintenance activity performed on the PEC baghouse. If a regular scheduled inspection or maintenance is not timely conducted, Respondent shall record the reason why the inspection and or maintenance was not conducted within the time specified in the plan and or the manufacturer's recommendation.
- d) Respondent shall maintain weekly records of the amount of sodium silicate (lute) used to seal leaks which release benzene emissions from the coke oven.
- e) Respondent shall identify the routine maintenance work that is completed on the coke oven doors, including the number of spare doors that are maintained at the facility.
- f) All records shall be maintained for a minimum of five (5) years and shall be made available for inspection upon request by Ohio EPA or SWOAQA. This Order will terminate at the time these requirements, in existing form or amended form, have been transferred into the facility's Title V permit to operate.
- 8. Within one hundred and eighty (180) days from the effective date of these Orders and continuing for 18 months, Respondent shall install a high-definition camera capable of recording video of particulate emissions from the emissions unit B918, No. 2 Coke Plant. Respondent shall thereafter video record 6 hours of the coke emissions daily unless technical circumstances beyond the reasonable control of Respondent prevent The video recording each week shall alternate between recording the operation during the morning (8:00 AM to 2:00 PM) and afternoon (2:00 PM to 8:00 PM). On a weekly basis, Respondent shall evaluate the video for each day and based on its reasonable engineering judgment, determine whether any particulate emissions identified on the video could have had the potential to result in an exceedance of an applicable opacity limit for pushing or the PEC baghouse from the emissions unit B918, No. 2 Coke Plant (an "Emissions Event"). Respondent shall maintain a record identifying that it has reviewed the video for a particular day, and who conducted the review. For each Emissions Event, Respondent shall record the date, time and description of the event. Respondent shall analyze the root cause of any Emissions Event. Respondent shall

Director's Final Findings and Orders AK Steel Corporation Page 6 of 9

maintain the video of each day for 30 days and make it available for review at the Facility by Ohio EPA and SWOAQA upon request. Respondent shall submit, in writing, quarterly reports within thirty days after the end of each calendar quarter (i.e., March 31, June 30, September 30, and December 31) of each calendar year to Ohio EPA identifying the date, time and description of each Emissions Event, and the results of any required root cause investigations. Upon acceptance of the analysis by Ohio EPA, Respondent shall, if necessary, update the Operation and Maintenance Plan required by 40 CFR Part 61 or 63.

9. Respondent shall provide purchase order records for the past two years, and up to the past five years if available, of the amount of sodium silicate (lute) used to minimize benzene emissions from the coke oven.

VI. TERMINATION

Respondent's obligations under these Orders shall terminate when Respondent certifies in writing and demonstrates to the satisfaction of Ohio EPA that Respondent has performed all obligations under these Orders, and the Chief of Ohio EPA's Division of Air Pollution Control acknowledges, in writing, the termination of these Orders. If Ohio EPA does not agree that all obligations have been performed, then Ohio EPA will notify Respondent of the obligations that have not been performed, in which case Respondent shall have an opportunity to address any such deficiencies and seek termination as described above.

The certification shall contain the following attestation: "I certify that the information contained in or accompanying this certification is true, accurate and complete."

This certification shall be submitted by Respondent to Ohio EPA and shall be signed by a responsible official of Respondent. For purposes of these Orders, a responsible official is as defined in OAC Rule 3745-33-03(D)(1) for a corporation, or a corporate officer who is in charge of a principal business function of Respondent.

VII. <u>OTHER CLAIMS</u>

Nothing in these Orders shall constitute or be construed as a release from any claim, cause of action or demand in law or equity against any person, firm, partnership or corporation, not a party to these Orders, for any liability arising from, or related to, operations by Respondent.

VIII. OTHER APPLICABLE LAWS

All actions required to be taken pursuant to these Orders shall be undertaken in accordance with the requirements of all applicable local, state and federal laws and regulations. These Orders do not waive or compromise the applicability and enforcement

Director's Final Findings and Orders AK Steel Corporation Page 7 of 9

of any other statutes or regulations applicable to Respondent.

IX. MODIFICATIONS

These Orders may be modified by agreement of the parties hereto. Modifications shall be in writing and shall be effective on the date entered in the journal of the Director of Ohio EPA.

X. NOTICE

All documents required to be submitted by Respondent pursuant to these Orders shall be addressed to:

Southwest Ohio Air Quality Agency 250 William Howard Taft Road Cincinnati, Ohio 45219 Attn: Brad Miller

Brad.Miller@hamilton-co.org

and to:

Ohio EPA
Division of Air Pollution Control
P.O. Box 1049
Columbus, Ohio 43216-1049
Attention: Jim Kavalec, Manager
Compliance and Enforcement Section

james.kavalec@epa.ohio.gov

or to such persons and addresses as may hereafter be otherwise specified in writing by Ohio EPA. Email submission is acceptable.

XI. RESERVATION OF RIGHTS

Ohio EPA and Respondent each reserve all rights, privileges and causes of action, except as specifically waived in Section XII of these Orders. Ohio EPA reserves the right to require Respondent to undertake additional actions in future orders.

XII. WAIVER

In order to resolve disputed claims, without admission of fact, violation or liability,

Director's Final Findings and Orders AK Steel Corporation Page 8 of 9

and in lieu of further enforcement action by Ohio EPA for only the violations specifically cited in these Orders, Respondent consents to the issuance of these Orders and agrees to comply with these Orders. Compliance with these Orders shall be a full accord and satisfaction for Respondent's liability for the violations specifically cited herein.

Respondent hereby waives the right to appeal the issuance, terms and conditions, and service of these Orders and Respondent hereby waives any and all rights Respondent may have to seek administrative or judicial review of these Orders either in law or equity.

Notwithstanding the preceding, Ohio EPA and Respondent agree that if these Orders are appealed by any other party to the Environmental Review Appeals Commission, or any court, Respondent retains the right to intervene and participate in such appeal. In such an event, Respondent shall continue to comply with these Orders notwithstanding such appeal and intervention unless these Orders are stayed, vacated or modified.

XIII. EFFECTIVE DATE

The effective date of these Orders is the date these Orders are entered into the Ohio EPA Director's journal.

Director's Final Findings and Orders AK Steel Corporation Page 9 of 9

XIV. SIGNATORY AUTHORITY

Each undersigned representative of a party to these Orders certifies that he or she is fully authorized to enter into these Orders and to legally bind such party to these Orders.

ORDERED AND AGREED:	
Ohio Environmental Protection Agency	
Craig W. Butler	G/19/18 Date
Director Director	Date
AGREED:	47
AK Steel Corporation	
	6/19/18
Signature	Date
Joseph C. Alter	
Printed or Typed Name	
Vice President, General Connect	
Vice President General Connect Title and Corporate Secretary	